



## New Jersey Department of Environmental Protection

### GLOSSARY OF ENVIRONMENTAL TERMS AND ACRONYMS<sup>1</sup>

*Italics indicate a term defined elsewhere in the report.*

**Administrative Consent Order (ACO):** A legally binding agreement between a government agency and a *responsible party*. It is an order voluntarily entered into by the responsible party that specifies actions or obligations of the responsible party, which may include site remediation.

**Administrative Record:** A file available for public review that contains all of the information used by a local agency to make its decision to a response under *CERCLA* (also known as *Superfund*). A copy of the Administrative Record is often established at or near the site, usually at an information repository. A duplicate file is held in a central location, such as the regional USEPA office or NJDEP.

**Applicable or Relevant and Appropriate Requirements (ARARs):** Federal and state environmental laws and regulations that apply to a site cleanup under *CERCLA*.

**Aquifer:** An underground layer of rock, sand, or gravel capable of storing water within cracks and pore spaces, or between grains. When water contained within an aquifer is of sufficient quantity and quality it can be tapped and used for drinking or other purposes. The water contained in the aquifer is called *ground water*.

**Area of Concern (AOC):** An area at a site where contamination is identified or suspected.

**AST:** Above ground storage tank

**Background Contamination:** Levels of hazardous substances in the environment that are either naturally occurring, from an off-site source or a result of general contamination in the area. These values are usually considered during a site investigation or cleanup.

**BCSRA:** Brownfield and Contaminated Site Remediation Act: passed in 1998, it defines how brownfield sites are to be remediated for reuse.

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<sup>1</sup> Documents provided on the [Office of Community Relations website](#) define in non-technical language the more commonly used environmental terms and concepts appearing in Site Remediation & Waste Management publications, news releases, and other documents available to the general public, students, the media, and state employees. These documents do not have regulatory effect, and cannot be relied upon in lieu of officially promulgated NJDEP rules and definitions published in the New Jersey Register and the New Jersey Administrative Code.

**Best Management Practices (BMP):** Informal guidance when there are no governing regulations.

**Brownfield:** Abandoned, idled, or underused industrial and commercial facilities where reuse or redevelopment is complicated by real or perceived environmental contamination.

**Cap:** A type of engineering control that typically consists of a layer of impermeable or semi-permeable material, such as soil, clay, asphalt or synthetic liner, placed over a contaminated area or waste fill. The cap protects against direct contact and/or prevents rain from penetrating and spreading the contamination.

**Carcinogen:** A substance that increases the incidence of cancer.

**Classification Exception Area (CEA):** A designation established whenever *ground water* standards in a particular area are not met. It ensures the use of the *aquifer* in that area is restricted until standards are achieved.

**Cleanup:** Remedial measures taken to address a release or potential release of hazardous substances that could affect public health or the environment. The term is often used interchangeably with *Remedial Action*, *Interim Remedial Measure* and *Construction*.

**Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):** The federal act passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The acts created a special tax that goes into a trust fund, commonly known as *Superfund*, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the Superfund program, USEPA may pay for site cleanup when *responsible parties* cannot be located or are unwilling or unable to perform the work. USEPA may also take legal action to force the responsible parties to clean up the site or reimburse the government for cleanup costs.

**Consent Decree:** A legal document approved and issued by a judge that formalizes an agreement reached between USEPA and *potentially responsible parties* (PRPs) for a *Superfund* site. It outlines actions that the PRPs are required to perform to clean up all or part of the site.

**Containment:** Actions to limit or prevent discharges or the spread of contamination.

**Contaminants of Concern (COCs):** The contaminants that are believed to be present at a specific site. Identifying COCs saves money, as it costs more to test for all possible contaminants than to test for a narrow range of contaminants.

**Construction:** Refers to any remedial activity taking place on the site. It is often referred to as *Remedial Action*.

**Covenant Not to Sue:** An agreement by the State of New Jersey that a site has been cleaned to state standards and they will not sue for any further cleanup (unless subsequent activities on the property cause additional contamination).

**Currently Known Extent (CKE):** The area where pollutant concentrations in *ground water* exceed New Jersey Drinking Water Standards (also known as *maximum contaminant levels* or *MCLs*), based on ground water and/or potable well sampling results.

**Decision Document:** A document issued at the conclusion of the *Remedial Investigation/Remedial Action Selection (RI/RAS)* phase that describes the selection of a *Remedial Action* for non-*Superfund* sites. It is similar to the *Record of Decision* issued after a Remedial Investigation/Feasibility Study (RI/FS) *Superfund* sites.

**Deed Notice:** A notification added to the title of a property when contamination will remain above NJDEP's residential/unrestricted soil cleanup criteria. A Deed Notice requires a property owner's concurrence and specifies the location and concentration of all contaminants and how they must be controlled, maintained or monitored. Every two years, the party responsible for conducting the remediation must certify the remedy continues to be protective.

**Directive:** A document issued by NJDEP that requires a potentially responsible party to take immediate action to address a release or potential release of hazardous substances.

**Downgradient:** Describes a downward slope that causes ground water to move toward lower elevations. Wells that are downgradient of an area of contaminated ground water are prone to becoming polluted.

**Engineering Control:** Any physical mechanism to contain or stabilize contamination or ensure the effectiveness of a remedial action. Some examples of engineering controls include caps, leachate control systems, signs, fences, slurry walls and ground water pumping systems.

**Extraction Well:** A well from which contaminated ground water or vapors are pumped.

**Feasibility Study (FS):** The process of evaluating remedial alternatives for a *Superfund* site from technical, environmental and cost perspectives, among other factors. It identifies the most cost-effective remedy that adequately protects human health and the environment and features a conceptual design, cost estimates and a preliminary implementation schedule. It is similar to the *Remedial Action Selection* conducted for non-*Superfund* sites.

**Focused Feasibility Study (FFS):** A limited feasibility study performed on a particular aspect of a site cleanup. They are usually conducted in response to an *Immediate Environmental Concern (IEC)* condition.

**Ground Water:** Subsurface water that fills pores between materials such as sand, soil or gravel.

**Ground Water Quality Standards (GWQS):** Standards that specify quality criteria and designated uses for ground water. The criteria are numerical values assigned to each pollutant. The GWQS also contain technical and general policies to ensure that the designated uses can be adequately protected. GWQS serve as the basis for setting ground water discharge standards under the *NJPDES* program and establishing standards for ground water cleanups under the Site Remediation and Waste Management Program.

**Hazardous Discharge Site Remediation Fund (HDSRF):** A state program that provides grants and low-interest loans to municipalities, counties and businesses for costs associated with remediating contaminated sites.

**Hazardous Substance:** Any material that poses a threat to human health and/or the environment. Hazardous substances are typically toxic, corrosive, ignitable, explosive or reactive.

**Interagency Working Group (IAWG):** A group of federal agencies organized by USEPA to provide advice to USEPA Brownfield pilot communities on various federal programs

**Immediate Environmental Concern (IEC):** A condition at a contaminated site that poses an acute or direct threat to human health.

**Inorganic:** Relating to compounds that do not contain hydrocarbon groups. Most inorganic compounds are derived from mineral sources. (See *organic*.)

**Institutional Control:** A mechanism that limits human activities at or near a contaminated site, or ensures the effectiveness of a remedial action over time, when contaminants remain at levels above the cleanup criteria that would allow unrestricted use of the property. They include, but are not limited to, *ground water Classification Exception Areas*, *deed notices*, and land use restrictions.

**Interim Remedial Measure (IRM):** An action taken to stabilize a site until final cleanup measures can be implemented. An IRM can entail excavation of contaminated soil, installation of a temporary *cap*, installation of a soil vapor extraction system to treat soil contaminated with *volatile organic compounds*, or a variety of other measures.

**ISRA:** Industrial Site Recovery Act, formerly known as ECRA, the state Environmental Cleanup Responsibility Act of 1983. It requires owner/operators to address environmental contamination that may be on-site prior to the transfer, sale or closure of subject industrial properties.

**Landfill Gas:** Methane gas formed by decomposition of materials in a landfill.

**Leachate:** A contaminated liquid that results when water percolates, or trickles, through waste materials and collects components of those wastes. Leaching that occurs at unlined landfills can cause hazardous substances to enter soil, surface water or ground water. State-of-the-art landfills have leachate collection systems.

**Long-Term Remedial Action (LTRA):** Operation and maintenance activities performed on large-scale ground water extraction and treatment plants at Superfund sites. These treatment plants are projected to run for several years until ground water cleanup criteria are achieved.

**MCLs:** Maximum Contaminant Levels for drinking water. Also known as New Jersey Drinking Water Standards.

**Memorandum of Agreement (MOA):** An agreement between NJDEP and *responsible parties*, developers, or local officials, for investigation and remediation of non-priority contaminated sites under the *Voluntary Cleanup Program*. It allows NJDEP to provide oversight of remedial activities, which can range from a preliminary assessment/site investigation to a full-scale cleanup. Unlike *Administrative Consent Orders*, MOAs do not require a remediation funding source (such as an escrow account) or stipulated penalties.

**Metals:** Elements such as mercury, chromium, cadmium, arsenic and lead. They may be harmful to living things at low concentrations and can accumulate in the food chain.

**Migration:** The movement of contaminants, water, or other liquids through porous and permeable subsurface soils or rock.

**Monitor Well:** Monitor wells provide access to *ground water* in order to get information about site conditions, such as the extent and type of ground water contamination, soil types, depth to ground water and direction of ground water flow.

**National Contingency Plan (NCP):** The basic policy for federal response actions under *CERCLA*.

**National Priorities List (NPL):** A list of sites determined by the federal government to have the highest priority based upon a hazard ranking system, making them eligible for federal funding under *CERCLA*. Sites on the NPL are called *Superfund* sites.

**Natural Attenuation:** The process by which contamination is reduced in concentration over time through adsorption, degradation, dilution and/or transformation.

**NJDEP:** New Jersey Department of Environmental Protection

**New Jersey Economic Development Agency (NJEDA):** An independent, self-supporting State financing entity for business and nonprofit organizations.

**New Jersey Environmental Management System (NJEMS):** NJDEP's computer database management system.

**New Jersey Home Mortgage Finance Agency (NJHFMFA):** Provides home ownership and housing assistance for residents of New Jersey.

**New Jersey Pollution Discharge Elimination System Program (NJPDDES):** This program protects New Jersey's ground and surface water quality by ensuring the proper treatment and discharge of wastewater (and its residuals) and stormwater from various types of facilities and activities. The program issues permits that limit the mass and/or concentrations of pollutants that may be discharged into ground water, streams, rivers, and the ocean. The types of regulated facilities range from very small users such as campgrounds, schools, and shopping centers to larger industrial and municipal wastewater dischargers.

**New Jersey Redevelopment Authority (NJRA):** A state financing agency committed to the redevelopment of urban New Jersey.

**New Jersey Spill Compensation and Control Act:** Also known as the Spill Act, this legislation authorizes the state to levy a tax on the transfer of petroleum products and hazardous substances. The revenues generated by the tax go into the New Jersey Spill Compensation Fund, which provides compensation to qualified individuals and businesses that suffer damages due to discharges of hazardous substances for which they were not responsible.

**No Further Action (NFA):** A determination by NJDEP that, based upon evaluation of the historical uses and/or investigation of a site or subsite, there are no contaminants present, or that any discharged contaminants that were present have been remediated to applicable standards or remediation regulations.

**Natural Resources Damages (NRD):** The amount of money NJDEP has determined is necessary to restore, rehabilitate, replace or otherwise compensate for injury to natural resources as a result of a discharge.

**Operable Unit (OU):** A portion of an overall remediation at a *Superfund* site, such as a soil or ground water cleanup. Several OUs may be implemented during the course of a site cleanup. OUs are also sometimes referred to as *subsites*.

**Operation and Maintenance (O&M):** Activities conducted at a site after a *Remedial Action* or *Interim Remedial Measure* has been completed to ensure the action is effective and operating properly. The term O&M covers a wide range of activities, from overseeing the proper functioning of a ground water treatment system to cutting the grass on a landfill cap. O&M can also include environmental monitoring conducted to evaluate the effectiveness of a Remedial Action.

**Organic:** Relating to compounds that contain hydrocarbon groups. (See *inorganic*.)

**Part per billion (ppb)/Part per million (ppm):** Units of concentration used to express the levels of contaminants at a site undergoing a *Remedial Investigation* or a cleanup.

**Pesticide:** Any chemical used for killing insects.

**Piezometer:** A type of well whose primary purpose is to measure the depth to *ground water*.

**Point-of-Entry Treatment System (POET):** A water filtration system that removes contaminants from private potable wells. These are frequently used in ground water contamination areas.

**Polychlorinated Biphenyls (PCBs):** A group of chemicals used in transformers and capacitors as an insulating material, in gas pipeline systems as a lubricant, and other purposes. Due to their

toxicity and environmental persistence, sale and new use of these materials was banned in 1979. Mixtures of PCBs are often referred to as Aroclors.

**Potable Water:** Water that is safe for drinking and cooking.

**Potentially Responsible Party (PRP):** An individual or company that may have contributed to the contamination at a site and may be liable for costs of response actions. Parties are considered PRPs until they admit liability or a court makes a determination of liability. PRPs may sign a *Consent Decree* or *Administrative Consent Order* to participate in site cleanup activity without admitting liability. (See *Responsible Party*.)

**Preliminary Assessment:** The initial process of collecting data and reviewing available information about a known or suspected waste site or release.

**Priority Pollutant Compounds:** A list of 126 chemicals defined as toxic pollutants by the federal Clean Water Act.

**Proposed Plan:** A document that summarizes cleanup alternatives considered for a *Superfund* site, the preferred cleanup strategy and the rationale for selecting the cleanup strategy. Superfund legislation requires USEPA to solicit public comment on the Proposed Plan as part of the remedy selection process. The final remedial actions selected for the site are outlined in a *Record of Decision (ROD)*.

**Quality Assurance/Quality Control (QA/QC):** A system of checks and balances used to ensure that field work and laboratory analysis during the investigation and cleanup of a site meets established standards.

**Record of Decision (ROD):** A public document that explains which cleanup alternative will be used at a *Superfund* site. The Record of Decision is based on information and technical analysis generated by the *Remedial Investigation/Feasibility Study* and consideration of public comments and community concerns.

**Reinjection:** Process by which *ground water* that has been extracted and treated to remove contaminants is returned to the aquifer.

**Remedial Action (RA):** The implementation of a selected remedy. It often follows a *Remedial Design*. A Remedial Action is sometimes also referred to as a site cleanup or construction project.

**Remedial Action Selection (RAS):** The process of selecting the most appropriate remedy for a non-Superfund site that will ensure protection of the public health and safety and the environment. It is based on consideration of a variety of factors, including future site use, surrounding land uses, remediation goals and objectives, cost, implementability, reliability and effectiveness. An RAS is similar to the *Feasibility Study* conducted for *Superfund* sites.

**Remedial Action Work Plan (RAW):** A plan developed by a responsible party to conduct cleanup work at a contaminated site. It must meet criteria established by the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E-6).

**Remedial Design (RD):** The engineering specifications developed to implement a remedy. It usually follows the *Feasibility Study* or *Remedial Action Selection*.

**Remedial Investigation (RI):** An in-depth study designed to gather data necessary to determine the nature and extent of contamination at a site and establish criteria for addressing it. The RI is usually done with a *Feasibility Study* at *Superfund* sites or with a *Remedial Action Selection* at non-Superfund sites.

**Removal Action (RA):** A measure taken over the short-term to address a release or potential release of hazardous substances.

**Resource Conservation and Recovery Act (RCRA):** A federal statute that requires comprehensive regulation of hazardous waste generation, transport, treatment and disposal. New Jersey has been delegated responsibility for RCRA and has enacted a comprehensive body of regulations to administer the Act, including public hearings.

**Responsible Party (RP):** A person, company or other entity that has been determined to be legally responsible for discharge of a hazardous substance. The *New Jersey Spill Compensation and Control Act* has a broader definition of responsible party than *CERCLA*.

**Sediment:** The layer of soil and minerals at the bottom of surface waters such as streams, lakes and rivers.

**Semi-Volatile Organic Compounds (SVOCs):** A class of organic compounds that is made up of acid extractable and base neutral organic compounds. Examples of SVOCs include polyaromatic hydrocarbons (PAHs), phenols and phthalates.

**Slurry Wall:** A subsurface wall of low permeability constructed near a waste source to control or reduce *ground water* flow and prevent the migration of the contamination.

**Subsite:** A contaminated area within a larger contaminated site that can be addressed separately due to its distinctive characteristics, such as its physical features or the nature of the contamination present.

**Superfund:** The common name for the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*, which was enacted by Congress in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). CERCLA authorized USEPA to provide long-term remedies at hazardous waste sites and established a fund of special taxes and general revenues to clean up these sites.

**Superfund Cooperative Agreement:** An agreement whereby USEPA transfers funds and other resources to a state for the accomplishment of certain remedial activities at sites on the *National*



*Priorities List (Superfund sites)* as authorized by the *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*.

**Surface Water:** Bodies of water that are above ground, such as rivers, lakes and streams.

**Technical Assistance Grant (TAG) Program:** A federal grant program that provides funds for qualified citizens' groups to hire independent technical advisors to help them understand and comment on technical decisions related to *Superfund* cleanup actions.

**Technical Requirements for Site Remediation:** NJDEP's procedures for investigating and cleaning up a site. It is also referred to as the Tech Rule and is codified in N.J.A.C. 7:26.

**Topography:** The physical nature of a surface area, including land elevations and the position of natural and man-made features.

**Underground Storage Tank (UST):** A tank located all or partially underground that is designed to hold petroleum products or other chemicals.

**Volatile Organic Compounds (VOC):** Carbon-containing chemicals that evaporate readily at room temperature. Examples of products that contain VOCs include gasoline, dry cleaning fluid and paint thinners.

**Voluntary Cleanup Program (VCP):** A program that offers *responsible parties*, developers, local officials or individuals the opportunity to work with NJDEP to investigate and clean up sites with limited contamination. NJDEP oversees the remedial activities under a *Memorandum of Agreement* with the parties conducting the work. (See *Administrative Consent Order*.)

**Water Line:** A pipe used to convey water from a public water supply.

**Wetland:** An area that is regularly saturated by surface or ground water and therefore is characterized by a prevalence of vegetation adapted to wet soil conditions. Examples of wetlands include swamps, bogs, marshes and estuaries.